



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

November 22, 2000

Mr. Greg Blaise
URS Griener Woodward Clyde
Stanford Place 3, Suite 1000
Denver, CO 80237

Dear Mr. Blaise:

Re: Elwha Dam Removal-Water Treatment Sediment Return-Flocculent Chemicals

This letter is in response to your request that the Department of Ecology (Ecology) provide initial comments on a water quality treatment option being considered as part of the proposed removal of the Elwha Dams.

The National Park Service is proposing a water treatment system that would use an infiltration gallery and flocculent to remove sediment from the industrial water supply needed by the City of Port Angeles, the Lower S'Klallam Tribe, and Washington Department of Fish and Wildlife (WDFW) during dam removal.

Based on your presentation on November 16, 2000, and our review of some relevant literature, Ecology has the following questions and concerns regarding the effects of sediment return and flocculent use on the water quality of the Elwha River:

Permitting: the proposal will likely require an individual National Pollutant Discharge Elimination System (NPDES) Permit, 401 water quality certification, and change in water right from Ecology, a Hydraulic Project Approval (HPA) from WDFW, and a shoreline permit from the local jurisdiction.

Return of sediment to the waterbody: the proposed action would likely require a modification to the water quality standards. As part of NPDES and 401 permit review, Ecology would have to consider whether such a modification is justified. Generally, Ecology does not permit deleterious material removed from a waterbody to be returned to a waterbody. However, our permit decision would be based on a number of factors, including the effect of the action on beneficial uses, if the action is in the public interest, whether the action is based on AKART, etc.

URS should provide additional information showing the amount of sediment likely to be removed from the river, the amount proposed to be returned to the river, the timing of the removal and returns, and any measures available to avoid or minimize the return of sediment to the waterbody. Additionally, Ecology will need a description of the likely impacts of the sediment load in the river, and the effects of the returned sediment to the waterbody.

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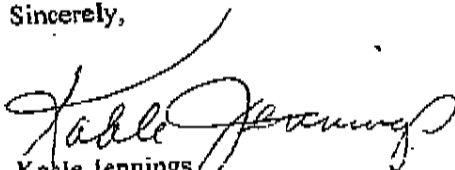
Use of flocculents: the current proposal is to use polyacrylimide (PAM) as a flocculent, which would be introduced into the river along with the returned sediment. We have concerns about the possible toxicity of PAM in the aquatic system, and the fate and transport of the material as it moves through the system.

URS should provide a literature review of relevant data on the toxicity of PAM to aquatic organisms, as well as any relevant studies on the fate and transport of PAM in aquatic systems. Ecology may need toxicity data on freshwater, estuarine, and marine organisms, depending on the findings of the fate and transport studies and the persistence of PAM in the aquatic environment. The findings of the literature review will help Ecology determine whether additional sampling, bioassays, or other testing needs to be done as part of permit review for the proposed project or as part of ongoing operations should the project be permitted.

URS should also investigate the use of other flocculents, such as alum, that could be used for the project, and should provide toxicity and fate and transport information on these other materials.

Thank you for the opportunity to comment. If you have any questions, please feel free to contact Greg Cloud at (360) 407-6291.

Sincerely,


Kahle Jennings
Acting Southwest Region Manager
Water Quality Program

KJ:GC:bp(kj12)

cc: Ralph Kopansky, Elwha Klallam Tribe
Wendy Bolender Ecology, SWRO
Greg Cloud Ecology, SWRO
Tom Luster Ecology HQ
Sue Maucrmann Ecology, SWRO

The leader!